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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,215	12/20/2001	Stephen L. Muench-Casanova	706126US1	7769

24938	7590	12/22/2004

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EXAMINER
FLEMING, FRITZ M

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance

with 37 CFR 1.67(a) identifying this application by application number and filing date is

required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not identify the citizenship of each inventor.

The citizenship for the first inventor appears to have been inadvertently left blank on the

declaration filed 2/27/02.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 2 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

First of all, claims 3 and 7 include the terminology ", such as Bluetooth." Thus

claims 3,4,7 are vague and indefinite because it is unclear if the ", such as Bluetooth." Is

exemplary in nature, or required by the claim, as the "such as" places a narrower

interpretation after a broader interpretation "standard". Thus it is unclear if the narrower

or broader limitation is meant. Secondly, claims 2 and 7 contain the trademark/trade

name BLUETOOTH. Where a trademark or trade name is used in a claim as a

limitation to identify or describe a particular material or product, the claim does not

comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte*

Simpson, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the

trademark or trade name cannot be used properly to identify any particular material or

product. A trademark or trade name is used to identify a source of goods, and not the

goods themselves. Thus, a trademark or trade name does not identify or describe the

goods associated with the trademark or trade name. In the present case, the

trademark/trade name is used to identify/describe a wireless protocol and, accordingly,

the identification/description is indefinite.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

6.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Nangle and Intel.

The admitted prior art at [0001-0004] (referring to published application 2003/0120911) sets forth that it is old and well known to program a programmable module via a slow hard wired J1850 communications bus, wherein the programming would require 13 minutes at the slow speed, wherein the assembly line allows 45 seconds at an assembly station. Thus the admitted prior art admits the programming of a programmable module on an assembly line via a slow hard-wired interface, wherein the use of the slow hard-wired bus for programming/reprogramming creates a "bottleneck" on the assembly line due to the time needed to perform the programming/reprogramming. What is lacking is the use of a faster wireless protocol to flash the memory more quickly, given an initial load of the wireless protocol by the wired bus.

Nangle, in the same art of memory programming and reprogramming, has identified the same problem in column 1, that there is a well known problem of the slow downloading of memory programming data via a physical port connection, which is the same as the admitted prior art wired bus interface. Thus it is explicitly stated in lines 44-62 that the

use of the physical port acts to increase the likelihood of a slower manufacturing time.

Thus a bottleneck is created in the production process by programming the flash

memory (i.e. flashing) via the conventional physical port and physical data link. Thus

Nangle teaches a way to overcome this manufacturing bottleneck by using an RF

programming protocol, such as BLUETOOTH(RTM) for flash programming per columns

2-5. While columns 3-4 call for the removal of the physical port for the practice of the

improvement, but it is clear that column 5, lines 18-35 state that it is conventional to

have a wireless device with a physical connection for downloading operating code into a

nonvolatile memory. While the desired manner to practice the improvement, it is clear

that the physical port can only be eliminated if it is not needed for further use. Clearly, if

the physical port is needed in the future, the teachings of Nangle clearly apply to the

programming that causes the bottleneck. If the bottleneck is caused by the post initial

programming, then Nangle clearly teaches to provide the post-initial programming via

the wireless and faster BLUETOOTH (RTM) wireless protocol. Nangle only teaches the

removal of the physical port if it is not needed, per the design criteria of column 5, lines

18-35. Clearly if the existing design requires the use of the physical port, then it is to be

left intact, wherein the subsequent programming is done in a wireless manner. This is

clearly summed up in column 5, lines 14-16, in which the improvement is called to be a

"retrofit" of an existing device. Hence a "retrofit" means that an existing device has an

existing wired physical port and the "retrofit" is to provide the ability to be flashed by a

wireless and faster protocol. It is to be noted that column 4, lines 13+ set forth a phased

programming approach. Here it is clearly set forth that a two level programming is

desired, with a first software version is preprogrammed and the second version is added

via the RF download. Column 4 continues to state that the first level of programming is

provided before shipping to an OEM wherein the first level has a boot-up algorithm to

allow the device to turn on and receive the first or second software versions. Further, a

second level may be provided for a wireless device application into BIOS for the

wireless functions. Thus the post initial programming, at a minimum, is done via the

wireless link. Column 5, lines 49+ also make for the possibility of the first programming

to prepare the wireless device to receive memory array configuration second

programming. This means that the first programming prepares the wireless device to

receive the secondary programming via the BLUETOOTH (RTM). Clearly, a preparation

means that the device has to be programmed in the conventional manner, as a

preparation for the wireless device means that it is prior to the stage in which the RF

can be received by the device. Thus, the teachings apply to preparing a device to

receive RF programming via a physical programming, as this would fall under the

explicitly taught "retrofit" as a "retrofit" in this aspect would mean that an existing device

with a convention physical port would be "retrofitted" with a wireless capability and

prepared via the physical port so as to enable subsequent secondary programming via

the RF protocol. Summed up in column 6, lines 3-17, one finds again a "retrofit" in

which an existing device is to be programmed for a new feature. The new programming

is downloaded via the RF interface.

The INTEL article shows the various components of the BLUETOOTH (RTM)

architecture, to include the protocol and its stacks and layers. Kernel modes are

needed per page 5, wherein the stacks are shown in Figure 3 and the use of

BLUETOOTH (RTM) as an open protocol are shown at page 8.

Thus it would have been obvious to one having ordinary skill in the art at the time that

the invention was made to modify the admitted prior art by the teachings of Nangle and

INTEL for the express purpose of avoiding a manufacturing bottleneck by downloading

secondary programming via an open RF protocol, such as BLUETOOTH (RTM), as this

is a faster protocol than the conventional physical port method. INTEL shows the types

of information to be included with the preparation programming of Nangle to include

stacks and kernels in order to prepare an existing device for RF flashing. As pointed

out above, Nangle prefers the elimination of the physical port, but in a "retrofit", the

existing port would not be removed, but the wireless added to avoid the bottleneck in

the manufacturing process.   Consistent with the combined teachings, one of ordinary

skill in the art would retrofit an existing programmable device with an existing physical

port with an RF flashing capability by providing an initial preparatory programming via

the wired (existing) physical port to enable additional secondary programming via an RF

(faster protocol like BLUETOOTH) interface. This is consistent with Nangle's retrofit

concept, to provide an initial capability by the manufacturer with additional programming

to be added via the RF by the OEM. Thus the second programming represents

additional programming such as applications and program software to be installed by

the OEM, thus requiring that the initial preparatory programming be smaller than what is

added by the OEM, as the initial programming is just designed to get the device to

download additional programming and functionality in a wireless manner. Per Nangle,

the wireless protocol is faster at about 700KBps. Nangle explicitly teaches that the

wireless is faster than the wired. AS Nangle and the admitted prior art set forth a

manufacturing environment, assembly lines being explicitly mentioned in the admitted

prior art, it is obvious subject matter that in a retrofit situation (such as that of the

admitted prior art J1850 port that is subsequently needed in the vehicle by the

programmable module), that the retrofit will leave the physical port in place and provide

the preparatory programming via this port in order to allow faster flashing at a

subsequent OEM station. Thus the initial programming is done in the conventional

manner via the conventional physical (i.e. wired) port, as there is no bottleneck in the

assembly line process at this point. Subsequent bottlenecks of the admitted prior art

are avoided by "retrofitting" via Nangle (and the details of the BLUETOOTH components

needed per INTEL) and subsequent secondary and faster downloading via the RF

interface. Thus the initial programming is done via a flashing at a first station via the

existing physical port and the secondary programming is done via the "retrofitted" RF

interface in order to avoid the manufacturing bottleneck of slowed manufacturing times,

as expressly taught by Nangle to be the solution to the problem. A "retrofit" does not

entail a removal of parts, but the addition of new parts or capabilities not previously

available at the time of original manufacture (per conventional dictionary meanings).

Thus the existing admitted prior art devices that have and require the use of the J1850

physical port are to be modified in a "retrofit manner" per Nangle (and the protocol

details of INTEL) to allow for the subsequent programming (i.e. flashing) via the faster

open FR protocol to avoid the manufacturing process bottlenecks caused by the

flashing of large amounts of memory via a slow physical interface, as expressly taught

to be the solution by Nangle to the same problem faced by applicants.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Walukas shows phone programming. Rhoads et al. show boot

loader programming. Raichle et al. show a wireless and wired interface of the J1850

variety. Hutchinson, IV et al. show program downloading. Wirtz, II et al. show flashing.

Hayes, Jr. et al. show wireless programming. AUDI AG show a mobile programming

apparatus 4. 2003/0120911 is the instant published application.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Fritz M Fleming whose telephone number is 571-272-

4145. The examiner can normally be reached on M-F, 0600-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Fritz M Fleming
Primary Examiner
Art Unit 2182

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